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ABSTRACT

The rapidity with which change occurs and knowledge expands requires that teachers constantly review their methods and techniques to ensure that students receive the best education. Teaching involves a series of decisions throughout the instructional process with regard to: a) the objectives of instruction; b) content; c) instructional strategies; d) assignments; and e) evaluation. These decisions can be made either by the instructor, the student, or by both student and instructor in cooperation. It is important to consider all possibilities in the construction of alternative instructional models, to combine various strategies in unique ways, and, subsequently, to subject these models to rigorous testing for validation. In order to do this it is necessary that one be open to change, realize the limits of his knowledge, and be receptive to the ideas of others. (HMD)

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AN ALTERNATE INSTRUCTIONAL AND ATTITUDINAL STRATEGY FOR CONSIDERATION [1]

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With the rapidity of societal changes occurring around us it is becoming increasingly more difficult for those involved in the educational process to remain abreast of these developments. Many of these changes, for example, the doubling of knowledge every ten years, have profound implications and thus create the need for the consideration and development of alternate instructional and attitudinal strategies. Strategies which provide direction for all concerned parties in the process,i.e., counselors, teachers, psychologists, and administrators, thereby enabling us to cope with contemporary societal conditions. Dyer (1967, p. 13) succinctly summarized our present state of affairs when he stated:

> We have more knowledge than we know what to do with, more people than we know how to live with, more physical energy than we know how to cope with, and, in all things, a faster rate of change than we know how to keep up with. So we dump the problems on the schools and hope that somehow they can program the oncoming generation for the unforseeable complexities

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of the 21st century, now less than thirty years away.

Such a state of affairs engenders some of the following questions. What can we do about it? How can we cope with this phenomena of change or as it is referred to by Bennis and Slater (1968), "the karate age." Are there any basic guidelines to assist us in our everyday functions? Given these factors how can one organize for instruction? Acknowledging the fact that there is no one way in which to cope with this problem my very modest goal in this paper will be to present:

1. A strategy or model by which to conceptualize the major considerations involved in the instructional process, and
2. an attitudinal guide which is consistent with and reinforces the instructional strategy.

The first section is clearly of primary concern to educators in the classroom and/or personnel responsible for assisting those involved in instruction, e.g., principal or academic dean. The second is viewed as important to all those involved in the process because it is thought to transcend any specific subject area, level, or particular position.

Instructional Model

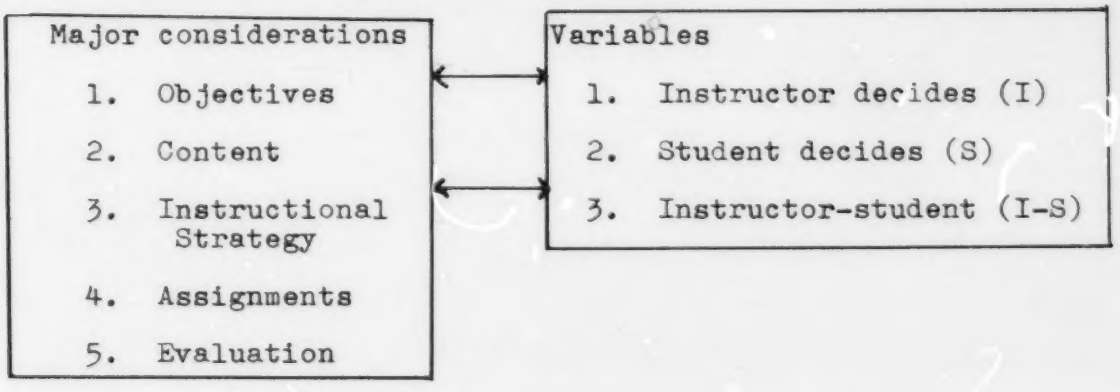
Teaching involves a series of decisions to be made throughout the process, and in this sense is not unlike the task of an experimental researcher. For example, in a research study per se the investigator is confronted with various decisions ranging

from what subjects to include to a method for analyzing the results. An instructor, on the other hand, is also confronted with a series of decisions, with the following constituting some of the major factors involved in the process:

1. Stating the objectives for instruction.
2. Content.
3. Instructional strategy.
4. Assignments.
5. Evaluation.

Before briefly discussing each of these factors I would like you to consider each of these major concerns as involving the following three possibilities, namely, instructor decides (I), student decides (S), or instructor-student decide (I-S). For example, when considering objectives it is possible for any one of the three as being responsible for the decisions to be made in this area. Later in the paper an example will illustrate how to utilize all these possibilities within the same course. What has been stated can be represented diagrammatically as follows:

Instructional Model



Objectives

In conducting research an experimenter generally states his hypothesis in the form of an "IF....THEN" statement or as the relationship between an independent ("cause") and dependent ("effect or outcome") variable. That is, IF I do such and such, THEN such and such should occur. In essence, he is making a prediction or "educated guess" about the outcome on the basis of a particular theory or idea. An instructor is also predicting (or should be) what will occur as a result of a given course of instruction, although assessing the effect is certaintly no easy task. However, in order to make a prediction one must state his objectives (goals of instruction) clearly and unambiguously in order to assess whether or not they are achieved, with Wick and Beggs (1971) expressing this concern in questions form as follows: Where am I going? How will I get there? and How will I know when I have arrived? The point is, we must be concerned with the delineation of objectives in order to provide direction to our instructional process.

An approach which has received increasingly more attention in recent times is the use of behavioral objectives, that is, objectives stated in behavioral form in which the emphasis is placed on observable or overt behavior. The concern is with what an individual actually does (what you see), rather than with what we think he is doing, however, it should be indicated that: (1) behavioral objectives are not panaceas, (2) not all objectives can be stated in behavioral form, and (3) it is more

difficult to specify objectives for certain areas of study than others, for instance, English compared to, say, mathematics.

Mager (1961, p. 12) noted that behavioral objectives consist of the following three essential parts:

1. Identify the terminal behavior by name... specify the kind of behavior which will be accepted as evidence that the learner has achieved the objective.
2. Try to further define the desired behavior by describing the important conditions under which the behavior will be expected to occur.
3. Specify the criteria of acceptable performance by describing how well the learner must perform to beconsidered acceptable.

An example of a behavioral objective which incorporates these three components would be: "Presented with twenty unranked scores and the formula for the arithmetic mean, the student will be expected to compute the mean in no more than five minutes. An answer within + or - .5 will receive full credit." Such an objective is evidentily much easier to interpret (for both student and instructor) than one in which the instructor simply informs the student that he should "know the mean." To "know the mean" could include remembering the formula; defining it in written or verbal form; selecting it from a group of other formulas; listing the advantages of the mean over other measures of central tendency, and so forth, the point being that our objectives should be explicit and

should not leave much room for doubt. That is, the intent should be clearly communicated to all concerned, thereby assisting the instructor and student in evaluating whether or not the objectives have or have not been achieved.

The above example was obviously much easier to state than if it were from say English, although even here one can make significant improvements over what has previously passed for objectives. For example, a colleague of mine lists an objective for his English course as "to understand" and while this may appear vague, he amends it to include the following factors as evidence for achieving this objective:

1. To state the concept in your own words.
2. Give at least two examples of it.
3. Recognize it within various guises and circumstances.
4. See connections between it and other facts or concepts.
5. Make use of it in various ways.
6. Forsee some of its consequences.
7. State its opposite or converse.

While the above may require further delineation, it is a significant improvement over simply stating the objective as "to understand."

In summary, stating objectives is an important and necessary function for anyone involved in the instructional process, and while behavioral objectives are by no means panaceas, they are to be preferred over vague, misleading, and uninterpretable statements. They do serve to assist both

the instructor and students and thereby minimize some of the mystery so often associated with course objectives. If it is worth knowing, then it should be worth delineation and specification and, hopefully, will be made known to the students. That is, furnish students at the beginning of instruction with a clear and concise statement of what is expected, how they will be evaluated, and what will be considered as the minimum acceptable performance.

Content

Years ago this particular concern presented no major problems because the content within many fields was rather limited, however, in more recent times the proliferation of data and the interdependency between fields has increased tremendously. These factors (as well as others) have thus created difficulties in the specification of what content to include within a given course of study. For example, it has been estimated that scientific knowledge is doubling every ten years and is often referred to as the "knowledge explosion." We are, rather simply, being innundated with more information than we know how to cope with. Borton (1970, p. 59) furnished evidence supporting the difficulty in selecting and delimiting content for educators when he stated:

> The student starting first grade this year will face double the amount of knowledge by the time he reaches tenth grade, and four times as much when he finishes graduate school. Three quarters of that knowledge we cannot teach him now because we do not know it.

Others have similarly noted the rapid change occurring in many different fields, with some projecting that man may have to be retrained as many as four or five times throughout his lifetime! Such retraining would apply to professionals as well,e.g., medical doctors. It appears as if we are now beginning an era when a man's knowledge and approach can become obsolete before, or at least shortly after, he has even begun the career for which he was trained. According to Bennis and Slater (1968, p. 8), "no matter how imaginative, energetic and brilliant he may be, time will soon catch up with him to the point where he can profitably be replaced by someone equally imaginative, energetic, and brilliant, but with a more up to date viewpoint and fewer obsolete preconceptions." Other examples indicating the magnitude of the problem include the fact that in the United States the government alone generates 100,000 reports each year, plus 405,000 articles, books, and papers, whereas worldwide, scientific and technical literature mounts at a rate of some 60,000,000 pages a year. Additional support for what has been presented appeared in an article by Harmon (1970, pp. 284-289) in which he proposed the following as describing not only our present conditions but those of the future:

> 1. ....a diversity of seemingly disparate problems and social phenomena are in actuality interlinked and may profitably be viewed as manisfestations of a more fundamental occurrence of vast social and historical proportions.

2. This underlying phenomenon is analagous to the Protestant Reformation in its relation to a rapid shift in basic, previously unquestioned cultural premises and in its pervasiveness in impinging upon every aspect of social institutions and customs.
3. This "New Reformation" has as one of its main roots in the enormously increased range of human choice which has been brought through technology and industry.
4. The combination of high technology and industrialization levels, together with rising population levels, has created a "world macroproblem" of unprecedented scope and complexity.
5. A drastic shift in operative values and cultural premises throughout the developed world is demanded for the satisfactory resolution of this world macroproblem.

Obviously, the above cited factors have important implications for those involved in the educational process. For instance, what content does one present? Will what one teaches today be obsolete tomorrow, next year, or is it already obsolete? What specific content will have the highest transfer value? Will it be applicable or generalize to other areas - both in and outside the classroom? These are but a few of the questions that could be asked and irrespective of the difficulty involved in the task, it must be resolved by those responsible for the process, with the following constituting some of the more

obvious implications:

1. It is virtually impossible to completely cover any specified field of study, consequently we must be very selective and critical of what we do decide to present in any given course.
2. It heightens or increases the problematic status of knowledge and thus engenders a concern with living and adapting to change and ambiguity, e.g., since 1900 there have been no less than five different approaches to child rearing.
3. Because of the rapid proliferation of data we must be increasingly more concerned with the processes of collecting, evaluating, and acting upon information.
4. Education (in the most general sense) assumes critical importance and can no longer be viewed as terminal. For instance, it has been estimated that within fifteen years two-thirds of our population living in metropolitan areas will have attended college; adult education is growing even faster.
5. The educator's role is changing (or must change) from that of the 'imparter of knowledge or information' to more of a catalyst for learning or a facilitator of the learning process (e.g., see Wight, 1970)

6. Interdisciplinary cooperation in problem solving, instruction, et cetera will become increasingly more important due to the interdependency between fields and the complexity of problems.

Instructional strategy

Another important area of concern is "what particular instructional strategy to employ?" Some individuals believe that in order to become more effective instructors or catalytic agents, we must experiment with different strategies and thus get away from the traditional lecture format. This should not be meant to imply that this format should never be used because obviously some are very adept at this type of instruction and at times it is warranted, however, there are many who are not and thus they should be concerned with investigating alternative approaches. Also, if one has never tried other alternatives how does one know which is the more effective and under what conditions?

As an illustration of what can be done I will describe (very briefly) a course I am presently teaching which incorporates and illustrates the factors I have been, and will be, discussing. The course is divided into four distinct stages of development as follows:

Stage I	:	Traditional or pedantic
Stage II	:	Group
Stage III	:	Reconciliation
Stage IV	:	Individualized

In Stage I the instructor decides what content will be covered, the methodology, assignments, and the evaluational system to be employed. In otherwords, he decides everything. In Stage II, on the other hand, the process is completely reversed in that the students decide upon the above mentioned factors. During this stage the class is divided into small groups (five to seven members and usually randomly), with the only restriction being that a group consensus must be reached on these matters. Stage III consists of both the student and instructor deciding the important concerns, with the student submitting a written contract indicating what he would like to do during this period of time, how, and how he would like to be evaluated. The evaluation is thus based upon how well the student achieves the objectives stated in the contract. If what the student proposes is not acceptable to the instructor then they arbitrate until some mutual decision is reached, with this mutual arbitration process applying to the grade assigned for this stage as well. The final stage is completely individualized so that the student decides everything on his own.

The format described actually divides the responsibility between both parties along the many different dimensions of concern, namely, objectives, content, instructional strategy, assignments and evluation. The author's bias leads him to believe that sharing the responsibility is preferred to that of the traditional instructor dominated format. Further, each student is exposed to four different instructional formats

within the same course, and thus can begin evaluating the relative advantages and disadvantages of each, as well as considering other alternatives. (Another advantage of this format is that it can be used at various levels)

Assignments and evaluation

Consistent with the theme of this paper both assignments and evaluation should vary along different dimensions. For instance, in my courses students are required to become involved in an outside field experience, although the experience can range from observation to interaction and is not restricted to any particular setting,i.e., it can take place in the schools, institutions for the mentally retarded, aged, delinquent, or emotionally disturbed, welfare agencies, courts, et cetera.

Recall the three possibilities cited previously (that is, instructor decides, student decides, or both decide) and then attempt to identify as many different types of assignments and evaluational devices you can. Ask your students for other possibilities. It will soon become evident that there are a multitude of possibilities, with such an approach acknowledging and reinforcing the fact that individuals do differ along various dimensions, and thus an opportunity is provided to utilize and capitalize upon such differences. Also, it provides opportunities for differential modes of involvement and the evaluation of such efforts and is therefore multivariate along both dimensions. Rather simply, it provides both instructor and student with many different choices and options.

Summary

The first part of this paper dealt with the concerns of instructors ranging from the stating of objectives to evaluation, though admittedly in a cursory manner. Its intention is to possibly assist those involved in the process and not to prescribe a specific course of action. Each instructor must decide upon those factors of importance to him, although, hopefully, he will not "lock" himself into a "fixed pattern of operation." We must, if we are committed to improvement, be concerned with what we are doing, how we are doing it, and why we are doing it. (See Withall, 1972) It is evident to many that we must experiment with other alternative instructional techniques because it is becoming obvious that we must get away from the "GIGO" system (Garbage in, Garbage Out), or "I spew forth and then you regurgitate at a later date." By permitting many different alternative courses of action we therefore increase considerably the many different instructional strategies possible. For example, if we utilize, say, two different instructional strategies, three types of evaluation, and three types of assignments, we present some eighteen different possibilities! Also, such an approach is certaintly more consistent with what we have learned from our behavioral science research concerning such matters as learning, motivation, and growth and development,e.g., individuals differ, there are different types and levels of intelligent behavior, and so on.

One way in which to conceive of what has been presented is in the form of an hypothesis, namely: IF knowledge is doubling

every ten years; we are living in a period of rapid change; computers are much more efficient at storing and processing information than a human being; ....THEN we must modify and adapt our attitudinal and instructional strategies (both conceptually and methodologically) to avoid becoming obsolete. (See Bennis, 1970 and Bennis and Slater, 1968) In addition, we need to consider alternatives to improve the social-emotional climate of our classrooms as well as other interactions, with the below listed guide directed at this consideration.

Attitudinal Guide

Despite our advanced technological sophistication it is apparent that we still need to adopt and adapt to change as well as the differences between people. Rather simply, to be able to get along with others, all others, both in this country and outside. This is clearly the pressing issue of our time or as Harmon (1970, p. 292) states, "All of us share the anxiety that our ability to create problems may have temporarily outstripped our ability to deal with them." Admittedly, while no one experience can accomplish the following, perhaps by constant, continual, in-depth exposure over a rather extended period of time we can assist not only ourselves but those who come to us for assistance and/or instruction in an understanding of, a commitment to, and a belief in the following:

1. We should not fear being reminded of our invincible ignorance.

2. We should constantly reaffirm our belief in the inspiriting, inconclusiveness of the modern intellect.
3. We should share our mutual ignorance in an accepting climate without fear of recrimination.
4. We should accept the fact that we are both learners and teachers in all that we do.
5. We should remind ourself that there is no <u>one</u> best way to do anything.
6. We should remind ourself that there are virtually no absolutes, instead, provisional certitudes.
7. Acknowedge that individuals do, in fact, differ along a multitude of dimensions, for example, ability, motivation, and interests.
8. There is no such entity as a theory of instruction, motivation, learning, et cetera, but instead, are <u>theories</u> of this and that.
9. We should realize that we must learn to live and adapt to change, ambiguity, and individual differences.
10. Any way of seeing inevitably involves a way of not seeing. We should not delude ourselves into believing that our "snapshot of reality" is <u>the</u> reality.

11. We should not fear subjecting the eternal verities to a bit of rescrutiny.
12. Acknowledge the difficulty in attempting to separate the emotions from the intellect. In otherwords, admit that we do so for pedagogical reasons.
13. Admit that it is extremely difficult to separate the philosophic (what ought to be) from the scientific (what is) or the standard from the norm.
14. We should continually reaffirm our belief in the human worth of each individual we come in contact with.

An advantage of the above, if eventually internalized and utilized, is that it will facilitate better human relations because it permits diversity of opinions and beliefs without implying or invoking the debilitating "I am better than you" principle which so often characterizes and impedes interpersonal relations. In addition, the above is more consistent with, and a mode for, possibly coping with those factors characterizing our present societal conditions,e.g., rapid change and the knowledge explosion. (See Toffler, 1970 for a more extended discussion of these factors) Another distinct advantage is that it places an individual in a <u>fallible</u> position in regards to a specialty or profession and is therefore, again, more consistent with contemporary societal conditions. There is

such a vast amount of information in any given field, innumerous unresolved questions,e.g., heredity-environment, rapid change occurring all around us, and confusion over specific goals and directions, that to act as if one is omnipotent is psychologically self defeating. In fact, it would place us in a position of readily admitting or emphasing what we don't know rather than what we do. Perhaps adherence might keep us on the threshold of continually looking at ourselves rather critically in order to avoid, or at least minimize, our inclination toward ideological superiority over others.

The writer suspects that many interpersonal difficulties between people are engendered by ideological differences, namely, we adhere to different belief or reality systems which make it extremely difficult for us to accept other points of view. It is as though once we adopt a paradigm of how and what the world is (and "ought to be," I might add), then we act accordingly or consistent with our model. The problem being that we often times really never question the model and/or are unable to accept other interpretations. Again, we assume that our snapshot of reality is the reality, with this being one of the primary determinants against harmonious interactions. Kuhn (1971), in his excellent text The Structure of Scientific Revolutions, presents an interesting and provocative account of paradigm building for those in the fields of science,e.g., physics, although his observations apply to other areas of study. His contention is that there is a tendency to get "locked into" a belief system thus obscuring or limiting one's vision, and

this may be why younger people or those recently introduced to a field tend to make the most significant contributions. Rather simply, they are still open and thus not commited to a particular model and its underlying assumptions. While a consensus on certain underlying assumptions is no doubt needed for progress to occur, there may be a point beyond which it serves in a debilitating capacity, with Kuhn (1971, p. 37) stating:

> A paradigm can....even insulate the community from those socially important problems....because they cannot be stated in terms of the conceptual and instrumental tools the paradigm supplies.

Perhaps this is part of the problem in the field of education, namely, there is relatively little freedom for the simultaneous consideration of different models. For example, how many administrators or teachers actually permit, utilize, or encourage diversity of instructional and/or attitudinal models? In fact, how many of us associate with those who adhere to different beliefs than those we espouse, or even make an attempt to understand their position? Once we commit ourselves to a model and its underlying assumptions then we are forced into a type of perceptual fixedness, that is, after a time we begin looking through the same glasses and seeing the same things. It is quite possible that we are often unaware of this state of affairs and therefore rarely question the assumptions that guide and direct us. No doubt, it is perplexing because how does one both educate (in the broadest possible sense) and free

a person at the same time? Throughout man's development this perennial question has continued to plague him, however, an attitudinal guide that provides for diversity is to be preferred over one that does not. According to Glaser (1972, pp. 11-12), "An educational system should present alternative environments that enhance the ability of the individual for self regulation in different possible situations for learning. ...An adaptive environment assumes many ways of succeeding and many goals available from which to choose." Our concern should be directed at how to interact with others who adhere to different belief systems,i.e., how to admit others into our belief system so that there is an overlap or intersection rather than mutual exclusion. The guide presented attempts to maximize such considerations.

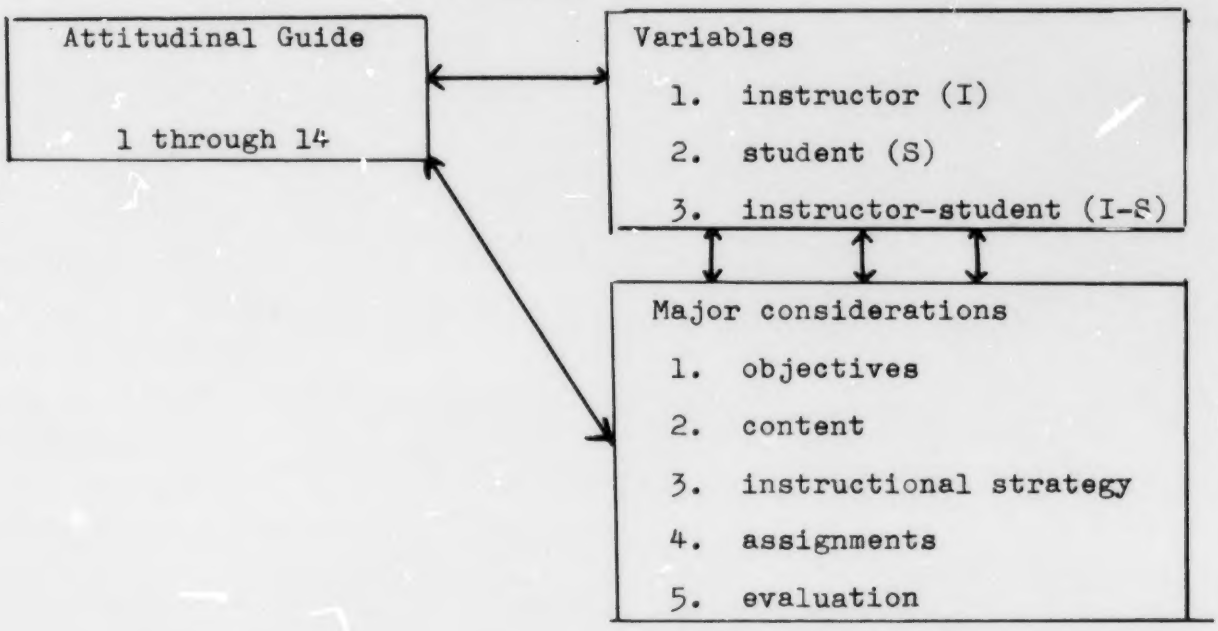
Although it is pure conjecture on my part, and therefore in need of a more rigorous test to determine its validity, the author believes that if administrators, psychologists, teachers, and counselors were to approach each other and their clientele (students, parents, and the public) with such a guide as that proposed here, then it would facilitate more positive interpersonal relations. Obviously, just telling someone this will have a limited effect, however, acting in a manner consistent with such beliefs would increase the probability of positive human interaction and consequently improve the social-emotional climate of the classroom as well as other educational interactions. In otherwords, we must be consistent with what we say and do. Withall (1972, p. 331) listed two criteria which could also be utilized while attempting to assess the impact of such an

atti tudinal guide, namely:

1. The behaviors used for serving the interests and welfare of clients are planned, witting, and deliberate.
2. The behaviors are monitored by the professional in situ. He observes and analyzes his own actions and learns through feedback received from his clients how his efforts are helping or influencing their interests and welfare.

Finally, the completed instructional model might look something like the following:

instructional model



Conclusion

With the plethora of problems existing in society, coupled with the rapid change, it is quite easy to get caught in the morass, that is, to lose sight of what we are doing, how, and why. It is admittedly much simpler in a time of stress to lay blame on others without ever really looking at what each of us can do to ameliorate the situation. Obviously, whatever we do will take considerable time to effect any signficant change and in all instances will appear miniscule when set against the panarama of life's events, or as Harmon (1970, p. 286) stated, "When the macroproblem is viewed as a single whole it appears to be <u>essentially</u> <u>unsolvable</u> within the context of present operative values and basic cultural premises. In fact, it is precisely against the feelings of hopelessness, frustration, powerlessness, and irrelevance that we must guard lest we become immobilized (e.g., through flights of fanatasy or other equally attractive diversionary tactics) and/or obsolete. During a period of rapid change it is quite easy to have our expectations and life style upended quite dramatically, the point being that we can, and often are, continually placed on the verge of becoming obsolete in our ideas and attitudes towards those things existing around us. In essence, many are fighting to remain abreast of contemporary developments while preserving their coping abilities.

Acknowledging the enormity of the task, my ratner modest purpose in this paper was to present an instructional and attitudinal guide for consideration, thereby assisting us in

in getting away from the strategy, answer, or belief and toward a more realistic assessment of various alternatives available. The times necessitate, in fact, demand, the development of strategies designed to assist us in coping with societal conditions. In order to increase our effectiveness and preserve our psychological well being (sanity) we must direct our efforts to the problems confronting us in a manner which keeps our respective individual selves intact as well as those of others. According to Withall (1970, p. 42)

> ....teacher educators and teacher education institutions must address themselves to the task of helping all teachers to formulate a rationale to guide their professional behaviours. This rationale must be founded on an ecclectic theory of learning and of instruction. Each teacher has to be encouraged and helped to formulate this for himself. Naturally, the facilitators of this formulation of a rationale by an intending teacher must themselves demonstrate their possession and utilization of a rationale of their own. More than this, they must be able and willing to communicate it to their charges.

Changing a belief system is never easy, and may be like trying to nail a chiffon pie to the wall. At the same time, how long can we continue to coexist with our fellow man and

other nations using a system that perpetuates the myth that we know all the answers? It appears that the educational system is perhaps the best and most likely place to begin, though it certaintly is no panacea. We need, among other things, to increase our ability to accpet persons different from ourselves, be it differences in religion, race, profession, or whatever. The question is, "How can we learn to live together with other human beings?" In an excellent article Allport (1962, p. 379) discusses two seemingly paradoxical qualities needed by those in the counseling profession (although it certaintly applies to other professions), namely, commitment and tentativeness, in which he states:

> Whenever the two attitudes coexist in a life we find important desirable by products from the fusion. One is a deep sense of compassion for the lot of the human race in general and in each separate social encounter that marks our daily life. The other by product is likewise graceful: it is the sense of humor. Humor requires the perspective of tentativeness, but also an underlying system of values that prevents laughter from souring into cynicism. As Meredith said, humor is a capacity to laugh at things you love and still to love them.

A way of viewing what remains to be done was stated very succinctly by Pinck (1972, p. 39) as follows: "Now, as then, we can transport packgaged materials, concepts, and training programs from one school system to another, but so far no one has devised a way to transplant generaous attitudes, feelings, and beliefs from one community to another." Is it possible for us to begin "transplanting" such important and necessary qualities?

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